

Broadband Local Loop Upgrade Analysis

On Behalf of the Rural Independent Nebraska
Companies

FCC WCB Meetings
November 3, 2010





The Data Set

- The Data Covered:
 - 500 Records (town and rural)
 - 345 Exchanges (or portions) Analyzed
 - 16 States and 68 Different Companies
 - Primarily upper-central US and Southeast
- Cost Summary
 - All costs for local loop included (labor, materials, engineering, etc.)
 - 67,700 miles and \$1.5B of estimated construction
 - \$17,000/mile mainline average – Rural
 - \$16.90/foot mainline average – Town
 - 3% of the most expensive areas required 10% of the investment

Engineering Assumptions



- All Designs Assume Greenfield FTTP Builds
 - Assumed reuse of everything except local loop
- All Locations in the Town and/or Rural Areas are Served
 - Both electronics and OSP were included
 - Mainline cable sized for serving empty lots because of duty to serve and future growth
- Each Location Can Have More Than One Subscriber
 - A “location” could be a home, business, MDU, etc.
- Local Loop investment constitutes a significant portion of total plant investment

	Percent of Total Plant
Large LECs	53.9%
Small RLECs	61.3%



Status Report

- We Will Share Some Very Preliminary Results
- Have Engaged Additional Expertise
- Georeferenced Exchange Data For 3 States
 - Will do so for all the data
- Identified Key Cost Variables
 - Have identified primary OSP construction cost drivers
- Identified Key Input Variables
 - Location density, density per route mile, soil type, weather conditions, etc.

Cost per Location Analysis (Town areas)



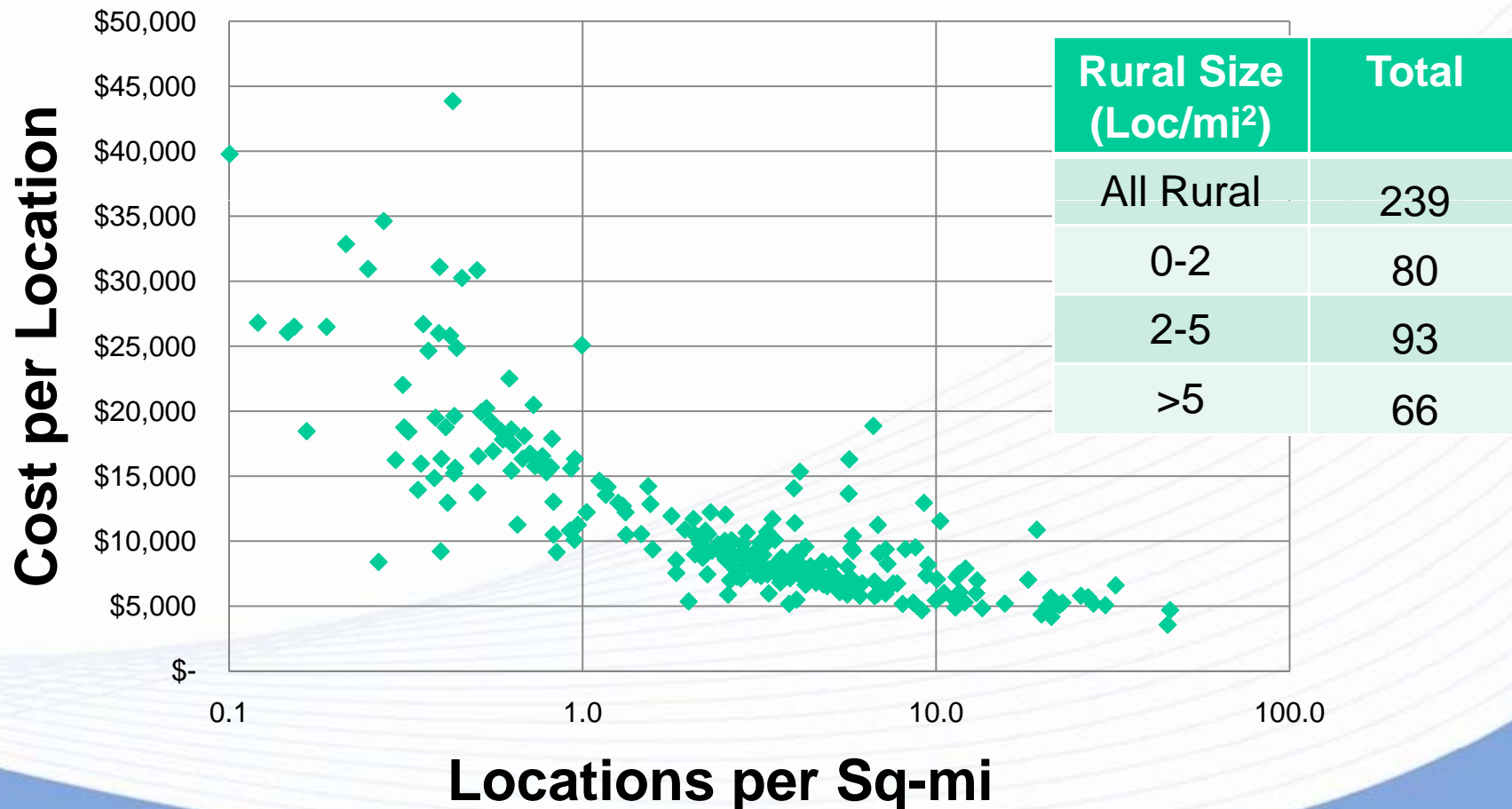
Cost/Location by Town Size



Cost/Location by Customer Density (Rural)



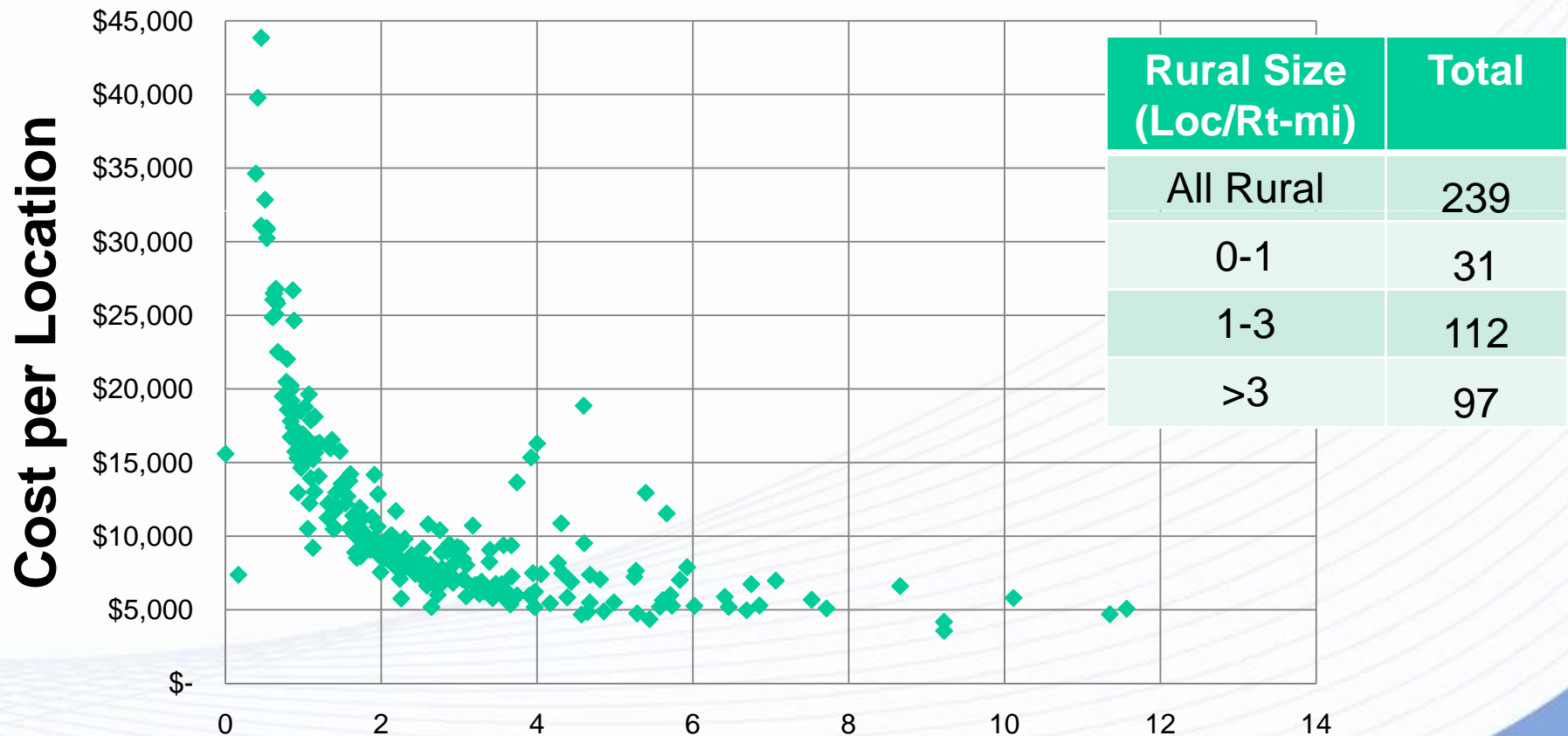
Cost/Location by Rural Density



Cost/Location by Cable Route Mile (Rural)



Cost/Location by Cable Route Miles



Locations per Cable Route Mile



Next Steps

- Georeference All Exchange Data
- Geographically Match Input Variables with Cost Analysis from Database
 - Location density, density per route mile, soil type, weather conditions, etc.
- Develop Multi-variable Regression Analysis
- Test Results
- Incorporate Additional Data

Summary



- Rate of Return Regulation has Resulted in the Deployment of Broadband to Rural Areas
 - It is a broadband deployment success story and has resulted in more broadband deployment in rural areas than the current Price Cap regulatory regime
- This Data, Along with Additional Cost Data that Could be Collected, May be Useful to Analyze and Determine the Investment Required and the Relative Efficiency of Such Investment Under a Rate of Return Framework